Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the Application:

1. (currently amended) A method for connecting a vessel to another vessel comprising:

providing a synthetic graft vessel having a first end and a second end, the second end coupled with a stent such that portions of the stent are fixedly attached to the second end of the graft vessel, wherein the stent defines an outer diameter when in an uncompressed state;

anastomosing the first end of the graft vessel to a side of an artery to yield an end-to-side anastomosis;

inserting an introducer into a vein at a vein opening that is at a side of the vein;

inserting a sheath into the vein at the vein opening such that, when both the introducer and the sheath are in the vein, at least a portion of the introducer is within the sheath;

removing the introducer from the vein;

inserting, after removal of the introducer from the vein, the second end of the graft vessel into the sheath such that at least a portion of the stent is

advanced into the vein so as to extend longitudinally therein, wherein the vein, at a position of the vein opening, has an inner diameter equal to or smaller than the outer diameter defined by the stent when in an uncompressed state; and

removing the sheath from the vein such that the second end of the graft vessel is anastomosed to the vein and is longitudinal oriented within the vein to yield an end-to-end anastomosis in which a portion of the vein to which the second end of the graft vessel is anastomosed becomes a terminal portion of the vein.

2. (cancelled)

3. (cancelled)

4. (previously presented) The method of claim 1, wherein the stent is fixedly attached to the second end of the graft vessel via a polymer.

5. (cancelled)

6. (cancelled)

7. (withdrawn) The method of claim 1, wherein removing the sheath from the vein allows the stent to unfold.

8. (withdrawn) The method of claim 1, wherein removing the sheath from the vein allows the stent to expand.

9-25. (cancelled)

26. (previously presented) The method of claim 4, wherein the polymer is a polyurethane.

27. (previously presented) The method of claim 1, wherein the stent is fixedly attached to the exterior surface of the graft vessel.

28. (previously presented) The method of claim 1, wherein when the sheath is removed from the vein, a perimeter length of the second end of the graft vessel remains substantially constant.

29. (previously presented) The method of claim 1, wherein the first end of the graft vessel is anastomosed to the artery before the second end of the graft vessel is anastomosed to the vein.

30. (previously presented) The method of claim 1, wherein the second end of the graft vessel is anastomosed to the vein before the first end of the graft vessel is anastomosed to the artery.

31. (previously presented) The method of claim 1, wherein the first end of the graft vessel is anastomosed to the artery without suturing.

32-46. (cancelled)

47. (previously presented) The method of claim 1, further comprising compressing the stent prior to inserting the second end of the graft vessel into the sheath.

48. (previously presented) The method of claim 1, wherein the opening in the vein is formed by a medical instrument that is separate from the introducer.

49. (previously presented) The method of claim 1, wherein the opening in the vein is formed with an introducer wire.

50. (previously presented) The method of claim 1, wherein the opening in the vein is formed by the introducer.